## ABSTRACT

A method for allocating memory in a computer system includes allocating a block of memory from an operating system, dividing the block of memory into frames, and dividing each of the frames into instances such that each of the instances is operable to store data. In addition, a software application using application-level memory management includes an application-level memory manager operable to allocate a block of memory to store data elements with the block of memory divided into frames and each frame divided into instances, and application code operable to store data elements in instances of a block of memory allocated by the application-level memory manager.